(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
29 September 2005 (29.09.2005)

PCT

(10) International Publication Number
WO 2005/089754 A1

(51) International Patent Classification[7]: A61K 31/4245, C07D 413/04, 413/14, A61P 29/00, C07D 403/04, A61K 31/454, 31/4196, C07D 417/04, 498/06, A61K 31/5383, C07D 417/14, A61K 31/427, 31/422, C07D 513/04, A61K 31/425

(21) International Application Number:
PCT/EP2005/050833

(22) International Filing Date: 28 February 2005 (28.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/550,563	5 March 2004 (05.03.2004)	US
04100902.8	5 March 2004 (05.03.2004)	EP
04103901.7	12 August 2004 (12.08.2004)	EP

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(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,

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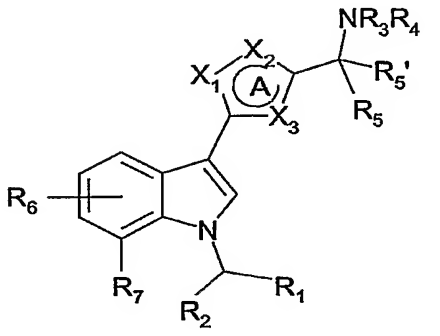
(54) Title: (INDOL-3-YL)-HETEROCYCLE DERIVATIVES AS AGONISTS OF THE CANNABINOID CB1 RECEPTOR



(I)

(57) Abstract: The invention relates to (indol-3-yl)-heterocycle derivatives having general Formula (I) wherein A represents a 5-membered aromatic heterocyclic ring, wherein X_1, X_2 and X_3 are independently selected from N, O, S and CR; R is H or (C_{1-4})alkyl; or R, when present in X_2 or X_3, may form together with R_3 a 5-8 membered ring; R_1 is a 5-8 membered saturated carbocyclic ring, optionally containing a heteroatom selected from O and S; R_2 is H, CH_3 or CH_2-CH_3;or R_2 is joined together with R_7 to form a 6-membered ring, optionally containing a heteroatom selected from O and S, and which heteroatom is bonded to the 7-position of the indole ring; R_3 and R_4 are independently H, (C_{1-6})alkyl or (C_{3-7})cycloalkyl, the alkyl groups being optionally substituted with OH, (C_{1-4})alkyloxy, (C_{1-4})alkylthio, (C_{1-4})alkylsulfonyl, CN or halogen; or R_3 together with R_4 and the N to which they are bonded form a 4-8 membered ring optionally containing a further heteroatom selected from O and S, and which is optionally substituted with OH, (C_{1-4})alkyl, (C_{1-4})alkyloxy, (C_{1-4})alkyloxy- (C_{1-4})alkyl, or halogen; or R_3 together with R_5 forms a 4-8 membered ring optionally containing a further heteroatom selected from O and S, and which is optionally substituted with OH, (C_{1-4})alkyl, (C_{1-4})alkyloxy, (C_{1-4})alkyloxy- (C_{1-4})alkyl, or halogen; or R_3 together with R, when present in X_2 or X_3, forms a 5-8 membered ring; R_5 is H or (C_{1-4})alkyl; or R_5 together with R_3 forms a 4-8 membered ring optionally containing a further heteroatom selected from O and S, and which is optionally substituted with OH, (C_{1-4})alkyl, (C_{1-4})alkyloxy, (C_{1-4}) alkyloxy- (C_{1-4})alkyl, or halogen; R_5' is H or (C_{1-4})alkyl; R_6 represents 1-3 substituents independently selected from H, $(C_{1-4}$ alkyl, (C_{1-4}) alkyloxy, CN and halogen; R_7 is H, (C_{1-4})alkyl, (C_{1-4})alkyloxy, CN or halogen; or R_7 is joined together with R_2 to form a 6-membered ring, optionally containing a further heteroatom selected from O and S, and which heteroatom is bonded to the 7-position of the indole ring; or a pharmaceutically acceptable salt thereof, as agonists of the cannabinoid CB1 receptor, which can be used in the treatment of pain such as for example peri-operative pain, chronic pain, neuropathic pain, cancer pain and pain and spasticity associated with multiple sclerosis.

WO 2005/089754 A1

SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report*

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